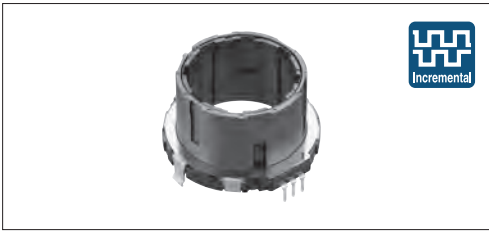


EC35A 35mm Size Ring Type

A low-profile unit with 4.5mm height and good operation feel



Encoders



Typical Specifications

Items	Specifications
Rating	10mA 5V DC
Operating life	50,000 cycles
Operating temperature range	-40°C to +85°C

Metal Shaft

Insulated Shaft

Through Shaft Type

Ring Type

Product Line

Actuator length (mm)	Detent torque (mN·m)	Number of detent	Number of pulse	Minimum order unit (pcs.)		Product No.	Drawing No.
				Japan	Export		
20	18±7	30	15	420	840	EC35A1520402	1
20	22±8	18	9			EC35A0930401	2
25	30±15	30	15	350	700	EC35A1550502	3

Packing Specifications

Tray

Actuator length (mm)	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case /export packing	
20	420	840	540×360×380
25	350	700	


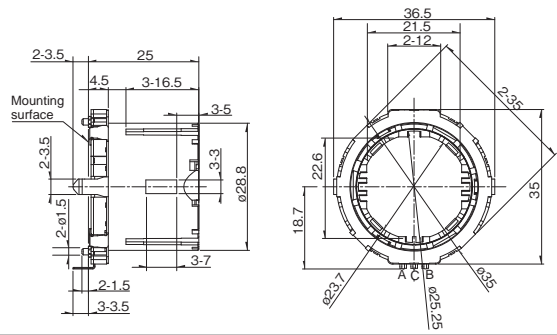
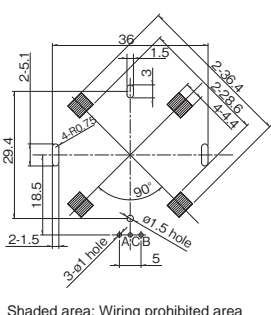
Dimensions

Unit:mm

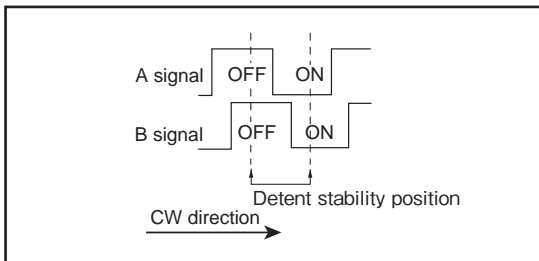
No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)
1	<p>EC35A1520402 Actuator length 20mm</p>		<p>Shaded area: Wiring prohibited area</p>
2	<p>EC35A0930401 Actuator length 20mm</p>		<p>Shaded area: Wiring prohibited area</p>

■ Dimensions

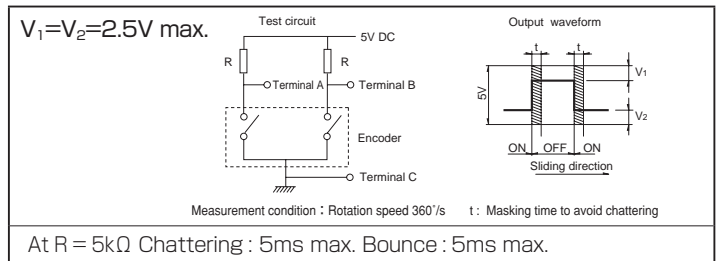
Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)
3	 <p>EC35A1550502 Actuator length 25mm</p>		 <p>Shaded area: Wiring prohibited area</p>

■ Output Wave



■ Sliding Noise



Encoders

Metal Shaft











Insulated Shaft

Through Shaft Type

Ring Type

Encoders

List of Varieties

Type		Ring type				
		28mm size		35mm size		
Series		EC28A	EC28C	EC35A	EC35AH	EC35CH
Photo						
Output		Incremental (Two phase A and B)			Incremental (Three phase A, B and C)	
Shaft types		Ring type				
Number of pulse / Number of detent		15/30 18/18	15/30	9/18 15/30	6×ABC/18 10×ABC/30	6×ABC/18
Dimensions (mm)	W	28		35		35.2
	D	29	29.5			36
	H	4		4.5		
Operating temperature range		-40°C to +85°C	-40°C to +90°C	-40°C to +85°C		-40°C to +90°C
Operating life		50,000 cycles				
Automotive use		●	●	●	●	●
Life cycle (availability)						
Electrical performance	Rating	10mA 5V DC				
	Max./min. operating current (Resistive load)	10mA /1mA				
	Insulation resistance	100MΩ min. 250V DC				
	Voltage proof	300V AC for 1minute or 360V AC for 2s	300V AC for 1minute or 360V AC for 1s	300V AC for 1minute or 360V AC for 2s		300V AC for 1minute or 360V AC for 1s
Mechanical performance	Detent torque	7±5mN·m 12±7mN·m 20±10mN·m	22±11mN·m (Initial) 16±7mN·m (After reflow)	18±7mN·m 22±8mN·m 30±15mN·m	12±5mN·m 18±7mN·m 30±15mN·m	22±11mN·m (Initial) 18±7mN·m (After reflow)
	Push-pull strength	100N				
Shaft configuration		Ring type				
Terminal type		Insertion				
Switch Specifications	Switch type	—	—	—	—	—
	Contact arrangement	—	—	—	—	—
	Travel (mm)	—	—	—	—	—
	Operating force (N)	—	—	—	—	—
	Switch ON position	—	—	—	—	—
	Rotational torque	—	—	—	—	—
	Rating	—	—	—	—	—
	Contact resistance	—	—	—	—	—
	Operating life	—	—	—	—	—
Page		266		268	270	

Encoders Soldering Conditions	275
Encoders Cautions	276

Notes

● Indicates applicability to all products in the series.